

Title (en)
Variable cam engine and method for controlling the variable cam engine

Title (de)
Brennkraftmaschine mit variabler Nockensteuerung und Verfahren zur Kontrolle dieser Brennkraftmaschine

Title (fr)
Moteur à commande de cames variable et méthode de contrôle de ce moteur

Publication
EP 1367229 B1 20051228 (EN)

Application
EP 03010494 A 20030509

Priority
JP 2002134939 A 20020510

Abstract (en)
[origin: US2003209228A1] A variable cam engine with an intake valve, including a first cam shaped to allow an increased intake valve lift and an increased intake valve duration, a second cam shaped to allow a reduced intake valve lift and a reduced intake valve duration, a cam switching mechanism for switching between the first and second cams depending on an engine speed and an engine load, and a control unit programmed to substantially equalize amounts of intake air flowing into the engine before and after switching from the first cam to the second cam, and programmed to determine a first ignition timing when the second cam is operated and a second ignition timing when the first cam is operated, and advance the first ignition timing relative to the second ignition timing upon switching from the first cam to the second cam.

IPC 1-7
F01L 1/26; **F02D 13/02**; **F02D 41/00**; **F02P 5/02**

IPC 8 full level
F01L 1/053 (2006.01); **F01L 1/08** (2006.01); **F01L 1/14** (2006.01); **F01L 1/20** (2006.01); **F01L 1/26** (2006.01); **F01L 13/00** (2006.01); **F02D 13/02** (2006.01); **F02D 41/00** (2006.01); **F02D 41/04** (2006.01); **F02D 43/00** (2006.01)

CPC (source: EP US)
F01L 1/053 (2013.01 - EP US); **F01L 1/08** (2013.01 - EP US); **F01L 1/143** (2013.01 - EP US); **F01L 1/20** (2013.01 - EP US); **F01L 1/267** (2013.01 - EP US); **F01L 13/0015** (2013.01 - EP US); **F02D 13/023** (2013.01 - EP US); **F02D 41/0002** (2013.01 - EP US); **F01L 2800/00** (2013.01 - EP US); **F02D 13/0269** (2013.01 - EP US); **F02D 2041/001** (2013.01 - EP US); **Y02T 10/12** (2013.01 - EP US); **Y02T 10/40** (2013.01 - EP US)

Cited by
DE102005022714A1; CN109386337A

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
US 2003209228 A1 20031113; **US 6772731 B2 20040810**; DE 60302934 D1 20060202; DE 60302934 T2 20060629; EP 1367229 A1 20031203; EP 1367229 B1 20051228; JP 2003328792 A 20031119

DOCDB simple family (application)
US 40909803 A 20030409; DE 60302934 T 20030509; EP 03010494 A 20030509; JP 2002134939 A 20020510